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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,272	01/22/2004	Fumihiro Fukae	0951-0131P	2587

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EXAMINER	
BURD, KEVIN MICHAEL	
ART UNIT	PAPER NUMBER
2611	

NOTIFICATION DATE	DELIVERY MODE
08/13/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/761,272	FUKAE, FUMIHIRO	
	Examiner	Art Unit	
	Kevin M. Burd	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-14,27-36 and 38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-14,27-36 and 38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 April 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. This office action, in response to the amendment filed 7/17/2008, is a non-final office action.

Response to Arguments

2. The drawings were received on 4/17/2008. These drawings are acceptable.

3. The objection to the disclosure is maintained and examples of these run-on sentences were provided. Each of the paragraphs consists of one grammatically incorrect sentence. Appropriate correction is required.

4. The previous claim objection and rejection under 35 USC 112, second paragraph are withdrawn in view of the amendment.

5. Applicant's arguments filed 4/17/2008 have been fully considered. As stated in the previous office action, Fukae discloses a transceiver circuit that determines a maximum transfer rate, detecting errors and determining and transferring data at the best possible rate. When errors are detected (outside of the predetermined range) the transfer rate will be lower than the maximum rate. This is disclosed in paragraph 0090. This negotiation will allow the highest possible transfer rate possible between the transmitter and receiver according to the error rate (quality) present in the communication link. When a zero rate is the highest possible transfer rate possible, this rate will be present in the communication system. Fukae does not explicitly state the communication between the transmitter and receiver is zero. Additional references are provided below that shows this feature is well known. A new rejection of the claims is stated below.

Specification

6. The disclosure is objected to because of the following informalities: numerous run-on sentences are recited in the specifications. Examples of these run-on sentences are stated in paragraphs 0042, 0044-0046, 0048-0081 and 0085.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-7, 9, 33, 34 and 38 are rejected under 35 U.S.C. 102(b) as being unpatentable over Fukae et al (US 2002/0199051) in view of Chawla et al (US 6,459,901).

Regarding claims 1, 4 and 5, Fukae discloses a transceiver circuit capable of transferring data at a transfer rate (abstract). The transceiver comprises a speed negotiation state machine having a phase for determining a maximum transfer rate for a channel (paragraph 0065). The determination is carried out through the exchange of a signal with a remote user and the data transfer can be carried out at a higher rate than the rate of the signal used to determine the speed (claim1, page 12). This is also shown in figure 4 where a higher speed is indicated between the nodes. Errors are measured by an error detection circuit (paragraph 0069). The maximum transfer rate is set to a

lower transfer speed than the maximum operational speed of a transceiver in the case where a channel of a high error rate is used (paragraph 0090). After the transfer rate change, the error rate is measured to ensure the error rate is within a predetermined range. When this range is maintained, the speed will not change (paragraph 0076 and 0077) and a new data transfer rate does not have to be negotiated. This negotiation will allow the highest possible transfer rate possible between the transmitter and receiver according to the error rate (quality) present in the communication link. When a zero rate is the highest possible transfer rate possible, this rate will be present in the communication system. Fukae does not explicitly state the communication between the transmitter and receiver is zero when the channel conditions have degraded below a threshold condition. Chawla discloses a transceiver that monitors link quality parameters and when the parameters fall below a threshold, then the controller servicing the communication link sets the mode of the link to a mode 0, which indicates that the transmission is stopped (column 8, lines 28-46). These quality comparisons allow the resource allocation technique to be optimized and allows the system to operate in the most efficient and effective manner possible. For this reason, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teaching of Chawla into the transceiver of Fukae.

Regarding claims 2, 6 and 9, as stated above, the errors are counter to determine the error rate (paragraph 0069). A timer is used in the speed negotiation system (figures 5, 6, 9 and 10).

Regarding claims 3 and 7, the transfer rate is compared to a minimum transfer rates. Table 1 discloses the possible transfer rates. Paragraph 0098 discloses the quality is determined and a change in transmission speed is made if necessary.

Regarding claim 33, Fukae discloses a transceiver circuit capable of transferring data at a transfer rate (abstract). The transceiver comprises a speed negotiation state machine having a phase for determining a maximum transfer rate for a channel (paragraph 0065). The determination is carried out through the exchange of a signal with a remote user and the data transfer can be carried out at a higher rate than the rate of the signal used to determine the speed (claim 1, page 12). This is also described in paragraph 0098 where a lower speed is indicated between the nodes. Errors are measured by an error detection circuit (paragraph 0069). The maximum transfer rate is set to a lower transfer speed than the maximum operational speed of a transceiver in the case where a channel of a high error rate is used (paragraph 0090). After the transfer rate change, the error rate is measured to ensure the error rate is within a predetermined range. When this range is maintained, the speed will not change (paragraph 0076 and 0077) and a new data transfer rate does not have to be negotiated. This negotiation will allow the highest possible transfer rate possible between the transmitter and receiver according to the error rate (quality) present in the communication link. When a zero rate is the highest possible transfer rate possible, this rate will be present in the communication system. Fukae does not explicitly state the communication between the transmitter and receiver is zero when the channel conditions have degraded below a threshold condition. Chawla discloses a transceiver

that monitors link quality parameters and when the parameters fall below a threshold, then the controller servicing the communication link sets the mode of the link to a mode 0, which indicates that the transmission is stopped (column 8, lines 28-46). These quality comparisons allow the resource allocation technique to be optimized and allows the system to operate in the most efficient and effective manner possible. For this reason, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teaching of Chawla into the transceiver of Fukae.

Regarding claim 34, as stated above, the errors are counter to determine the error rate (paragraph 0069). A timer is used in the speed negotiation system (figures 5, 6, 9 and 10.

Regarding claim 38, Fukae discloses a method of using a transceiver circuit capable of transferring data at a transfer rate (abstract). The transceiver determines a maximum transfer rate for a channel (paragraph 0065). The determination is carried out through the exchange of a signal with a remote user and the data transfer can be carried out at a higher rate than the rate of the signal used to determine the speed (claim1, page 12). This is also shown in figure 4 where a higher speed is indicated between the nodes. Errors are measured by an error detection circuit (paragraph 0069). The maximum transfer rate is set to a lower transfer speed than the maximum operational speed of a transceiver in the case where a channel of a high error rate is used (paragraph 0090). After the transfer rate change, the error rate is measured to ensure the error rate is within a predetermined range. When this range is maintained, the speed will not change (paragraph 0076 and 0077) and a new data transfer rate does

not have to be negotiated. This negotiation will allow the highest possible transfer rate possible between the transmitter and receiver according to the error rate (quality) present in the communication link. When a zero rate is the highest possible transfer rate possible, this rate will be present in the communication system. Fukae does not explicitly state the communication between the transmitter and receiver is zero when the channel conditions have degraded below a threshold condition. Chawla discloses a transceiver that monitors link quality parameters and when the parameters fall below a threshold, then the controller servicing the communication link sets the mode of the link to a mode 0, which indicates that the transmission is stopped (column 8, lines 28-46). These quality comparisons allow the resource allocation technique to be optimized and allows the system to operate in the most efficient and effective manner possible. For this reason, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teaching of Chawla into the method of Fukae.

8. Claims 10-14, 27-32, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukae et al (US 2002/0199051) in view of Chawla et al (US 6,459,901 further in view of Peponides (US 5,790,941).

Regarding claims 10-14, 27-32 and 35, the combination of Fukae and Chawla discloses the circuit stated above. The combination does not disclose disconnecting, suspending or turning off the power supply to portions of the circuit. Peponides discloses a communication apparatus that measures the quality of a received signal. The quality is determined based on comparison of different signal parameters. When

the received signal is of a predetermined quality, the circuit will enter a sleep mode. The sleep mode is advantageous since elements of the transceiver can be powered down. This will save power and reduce operational costs. The elements that are powered down are effectively disconnected from the powered portions of the transceiver. For this reason, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the sleep mode components of the transceiver of Peponides into the circuit of the combination of Fukae and Chawla. The circuit will be powered up when conditions dictate.

Regarding claim 36, the combination of Fukae and Chawla discloses the time used in the timers is fixed (Fukae: figures 5, 6, 9 and 10). The combination does not disclose the length of this time period. The length of this time is a design choice. It would have been obvious to use any amount of time that will establish the amount of time between transmissions and the amount of time needed to determine the transmission speed. More time would allow for a more accurate measure of the status of the channel. Less time will allow the circuit to function faster.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. J.Starr (US 2002/0167970) and Katz (US 7,069,051) disclose monitoring the quality of a communication channel and when the quality of that channel degrades, stopping communication on that channel in paragraph 0022 and column 6, lines 55-58 respectively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Burd whose telephone number is (571) 272-3008. The examiner can normally be reached on Monday - Friday 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin M. Burd/
Primary Examiner, Art Unit 2611
8/9/2008